



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,979	09/09/2003	Sethumadhavan Chandrasekhar	17-76-3	1303
7590	04/15/2005		EXAMINER	
John A. Caccuro 9 Ladwood Drive Holmdel, NJ 07733			LIN, TINA M	
			ART UNIT	PAPER NUMBER
			2874	

DATE MAILED: 04/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SM

Office Action Summary	Application No. 10/657,979	Applicant(s) CHANDRASEKHAR ET AL.	
	Examiner Tina M. Lin	Art Unit 2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 12 is/are rejected.
- 7) ☒ Claim(s) 9-11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/9/03</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Drawings

The drawings are objected to because: The drawings filed with this application on 09 September 2003, are objected to as being informal. Notice the labels on all of the figures are handwritten.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

Art Unit: 2874

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

JDL
Claims ^{1-8 and 12}~~1-12~~ are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent

Application Publication 2003/0002104 to Caroli et al.

In regards to claims 1 and 12, Caroli et al discloses a coupler (306) for receiving a multi-wavelength input optical signal and coupling a first portion to a waveband OADM and a second portion to a variable-bandwidth wavelength OADM. The waveband OADM receives a first signal portion and selectively passes one or more wavebands (326) and outputs the non-passed one or more wavelength bands at a drop port (304). The variable-bandwidth wavelength OADM connected in parallel with the waveband OADM receives a second signal portion and selectively passes one or more wavebands (364), outputs the non-passed one or more wavelength bands at a drop port (362) and receiving a third input optical signal at an add port (331) which is combined with passed wavelength channels to form a second output and a combiner (307) for combining the first and second output signals to form a OADM apparatus output signal. (Figures 3 and 4)

Caroli et al fails to disclose receiving a second input optical signal at an add port to be combined with passed wavebands to form a first output signal. However, in Figure 2, Caroli et al does disclose an add drop node. Caroli et al further discloses the node could be operable with or without the add port. Caroli et al further states that a wavelength can be added back to the WDM input signal if desired. ([0020], [0026]) Therefore, although Caroli et al does not show an add port in Figure 3 and 5, from Figure 2 and Caroli et al's disclosure, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have included an add port in order to recombine the original input signal.

In regards to claim 2, Caroli et al discloses all discussed above but fails to disclose the first and second signal portions to be equal. However, Caroli et al discloses the interleaver (306) to separate the channels in the input signal "according to a prescribed pattern or arrangement". Caroli et al does not exclude a pattern or arrangement that separates the first and second signal equally. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have separated the first and second signal portions equally since Caroli et al states that the channels can be separated by any arrangement or pattern and does not exclude separating the signals equally. ([0036])

In regards to claim 3, Caroli et al discloses all discussed above and further discloses OADM to be able to block one or more wavebands in response to a waveband control signal. ([0023], [0031])

In regards to claim 4, Caroli et al discloses all discussed above and further discloses a second waveband control signal used to select the waveband and the passed wavelengths of the selected wavelengths are selected in response to a control signal. ([0023], [0031])

In regards to claim 5, Caroli et al discloses all discussed above and further discloses a first waveband blocker (325) for selectively blocking one or more wavebands and passing non-blocked wavebands through the OADM apparatus.

In regards to claim 6, Caroli et al discloses all discussed above but fails to disclose a second waveband blocker for selectively dropping one or more wavebands. However, by the addition of a second waveband blocker, the blocker would create a greater channel spacing between adjacent optical channels and therefore minimizing insertion loss crosstalk and other potential problems when channels are too closely spaced. Furthermore, it would have been

Art Unit: 2874

obvious at the time the invention was made to a person having ordinary skill in the art to include an additional waveband blocker since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8

In regards to claim 7, Caroli et al discloses all discussed above and further discloses a second equal portion signal for selectively passing one or more wavelength channels through the OADM apparatus.

In regards to claim 8, Caroli et al discloses all discussed above but fails to disclose a second waveband blocker for selectively dropping one or more wavebands. However, by the addition of a second waveband blocker, the blocker would create a greater channel spacing between adjacent optical channels and therefore minimizing insertion loss crosstalk and other potential problems when channels are too closely spaced. Furthermore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to include an additional waveband blocker since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8

Allowable Subject Matter

Claims 9-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2874

In regards to claim 9, the prior art of record fails to disclose or reasonably suggest a second splitter that power splits the optical signal sent to the OADM and sends it to both OADMs.

In regards to claims 10 and 11, the prior art of record fails to disclose a coupler is a band demultiplexer that splits the input signal and a combiner being a band multiplexer that combines the signals from the two OADMs to form an output signal.

The documents submitted by applicant in the Information Disclosure Statement have been considered and made of record. Note attached copy of form PTO-1449. None of the documents submitted by the Applicant discloses or reasonably suggests the allowable subject matter discussed above.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Reference B discusses a dynamic add/drop multiplexer, however Reference B does not discloses or reasonably suggests the allowable subject matter discussed above.

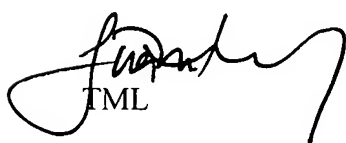
This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 2874

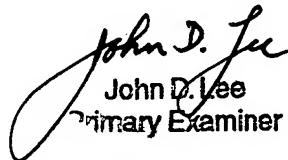
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tina M. Lin whose telephone number is (571) 272-2352. The examiner can normally be reached on Monday-Friday 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



TML



John D. Lee
Primary Examiner